

Fitch (J. C.)

CASE  
OF  
FRACTURE OF THE SKULL,  
WITH  
LOSS OF A PORTION OF THE SUBSTANCE OF THE  
BRAIN—RECOVERY.

BY JAMES C. FITCH, M.D.

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ON the 19th of July, 1849, George D. Fitch, aged eleven years, son of the writer, was thrown from a horse, and after regaining the erect position, was kicked by the animal on the head. This occurred about seven o'clock, P. M.

He was borne to his residence perfectly insensible, and in a state of complete prostration. On examination, there was found a compound comminuted fracture of the skull, at the superior part of the junction between the right parietal and temporal bones; a portion of the bone, about two and a half inches in length by about an inch in breadth (or the width of the horse's shoe), having been driven in upon the brain.

The hemorrhage was profuse, and in dressing the wound a portion of the brain came out. Reaction did not take place until four o'clock the next morning, patient still remaining in a comatose state.

*July 20th.* Dressed the wound with Dr. W. P. Clark,\* of Belvidere, when another portion of brain came out.

\* To Dr. W. P. Clark, my friend and more than brother, I would here tender my grateful acknowledgments for the promptness with which he responded to my call,

21st. In dressing the wound to-day, a portion of the brain one inch in length protruded, but was confined by the membranes. Patient manifested sensitiveness when this was touched; but in other respects continuing in the same insensible condition as heretofore. Not able to swallow anything. The strength of two or three persons is required to keep him on the bed, and he lies still at no time more than three minutes.

25th. Continues much in the same condition. Put a little water in his mouth, part of which ran out. A little seemed to go down the throat, and gave rise to strangling and spasms, resembling somewhat spasms of hydrophobia.

27th. Opened his eyes for the first time since the accident, and took notice of a glass of water in my hand, and seemed desirous of drinking, but was unable to swallow. An hour afterwards, he again opened his eyes, and the water was offered him, of which he seemed to swallow a little. In another hour, he by looks expressed a desire to drink, and on presenting him the glass, he bit a piece from it, which he held so firmly in his mouth that it was with great difficulty extracted. Up to this time he had received no nourishment whatever, except from enemata of arrow-root and milk.

28th. Looked up and spoke a word indistinctly—being the first word he had spoken since the accident. For the first time he seemed to recognize his friends. He also to-day received nourishment into his stomach for the first time, taking every two hours a teaspoonful of milk, thickened with arrow-root; this was continued until Wednesday, August 1st, when one cracker in twenty-four hours was added to the above. This plan of giving nourishment was continued till Friday, August 3d, when he rejected all that had previously been given by the mouth, showing that the stomach had been incapable of performing its function. The act of vomiting exhausted him to such a degree that we feared the vital force was expended. A few drops of strong brandy were given every few hours, and in the course of two days he had regained his former position, and from that time the

and for his punctual and daily attendance for more than three weeks (though living at a distance of ten miles), as well as for the consolation he afforded me in my affliction.—J. C. F.

nourishment given him by the mouth seemed to be digested without difficulty.

*Aug. 9th.* Patient having had no discharge from the bowels since the accident, at the recommendation of my friend Dr. Clark, a suppository was given, which had the desired effect. The wound looks well. Two pieces of bone were removed. Patient seems to be perfectly sensible, and, though he has great difficulty in articulating, converses on ordinary topics. He has no recollection of what has passed during the last few weeks, expressing by his looks much astonishment, when informed of the length of time that has elapsed. Has the appearance of just having awakened from a sound sleep.

*13th.* Wound looks well. With assistance, he got up and walked across the room.

*15th.* Appetite and digestion very good. Bowels moved daily by injections.

*18th.* The wound still improves, and with it his general health. Experiences much difficulty in articulating some words. Recognizes persons and things, but cannot call their names, though when the name is once repeated, he retains it. For instance, a friend called to see him; and though he seemed by his looks to recognize him, he could not call his name until it was repeated to him, after which he had no difficulty as far as that particular individual was concerned. All eatables he calls *bread*, until he hears their names called. When he wishes an article of which he cannot call the name, he can describe it and compare it to things of which he does know the name, so that he can be understood.

His loss of memory seems also to involve the memory of things as associated with taste. For instance, being very fond of raspberry brandy, he desired some, but not being able to call it by name, he succeeded in giving his mother to understand that it was kept on an upper shelf in a cupboard in the room, and with considerable difficulty made her understand that it was in a bottle. Fearing the stimulant effect of the brandy, it was easy to satisfy him with a little sweetened water, which he supposed was the raspberry brandy.

*Sept. 14th.* Wound continues to improve. Patient has been

out riding. Recollects the circumstances connected with the accident, and relates them very correctly. Continues to experience difficulty in articulating some words. Still recognizes persons and things without being able to call their names.

*Oct. 19th.* Wound slowly healing, discharging a large quantity of pus daily. Complains when he coughs. Memory, and the difficulty in articulating words improving.

*Nov. 19th.* Wound still discharges. Complains of weakness in his *right* arm. Very active; health good; articulation improving. Goes to school. Has difficulty in remembering some of the letters of the alphabet, and some words. Has difficulty in forming some of the letters in writing. His memory fails in mathematics, but when one example is performed for him where he left off in algebra, his knowledge is revived, and he can perform other examples without assistance.

*25th.* In dressing the wound, a portion of bone came out.

*Dec. 3d.* Wound still discharging. A small piece of bone came out.

*19th.* Five months since the accident. Wound still discharging. Two small pieces of bone came out.

*Jan. 19th, 1850.* Wound still discharging.

*March 19th.* Wound discharges a great deal. Health very good.

*May 9th.* Extracted a piece of bone from the wound which caused a profuse hemorrhage. This is the largest piece of bone that has come away.

*June 13th.* Extracted a piece of bone.

*July 19th.* One year since the accident. Wound still discharging. A piece of bone looks as if it would come away soon. Enjoys good health, learns well, is active, and in all respects mentally sound.

*Sept. 1st.* Wound seems closed. *15th.* Wound discharging much matter. *16th.* Extracted a portion of bone.

*Dec. 20th.* Extracted a large piece of bone, after which the wound closed up and is perfectly sound to this day, Nov. 16, 1851.

HOPE, WARREN Co., N. J., Nov. 1851.

*Remarks on the above Case.* By S. W. BUTLER, M. D.

THE rare occurrence of severe injuries to the brain, and the very great danger that necessarily accompanies such lesions, when they do occur, combine to throw around them an interest which attaches itself to no other species of injury. Until the celebrated Perceval Pott, by his judicious teachings and writings, completely revolutionized the whole plan of treatment in injuries to the brain, they were much more frequently fatal than at present. Perhaps in no one department has modern surgery achieved a greater triumph than in this. It is a popular notion, and even some of the profession are involved in it, that injuries to the brain, more especially where any portion of its substance has been lost, necessarily involve loss of life.

Such, indeed, was generally the case before the observations and untiring energy of Pott, and others of his time, introduced more rational methods of treating such injuries than had been pursued before. Yet we doubt whether the credulity of even a Pott would not have been somewhat taxed, had he read reports of the success in treating some cases of injury to the brain which have occurred in modern times. Doubtless some of our readers may remember a case published two or three years since, by Dr. Harlow of Cavendish, Vermont, in which a man recovered after having had an iron bar or "tamping-iron," three feet seven inches in length, one and a quarter inches in diameter, weighing thirteen and a quarter pounds, driven "with a crash" through his brain high into the air, and thrown several rods beyond him, where it was picked up "covered with blood and brains!" This is no fancy picture, drawn to task credulity, but a well authenticated fact. The patient, Phineas P. Gage, is probably still alive, and retains in a perfect degree his mental powers. Indeed, at no time during his recovery, was his mind seriously affected. In this case, the iron bar entered near the angle of the lower jaw of the left side, and passing upwards, involved the left eye, so as ultimately to destroy vision in it, and finally passed out near the centre of the frontal bone just in advance of the coronal

suture. It therefore, in its course, involved only the anterior lobes of the brain, consequently, not necessarily involving those parts, whose peculiar function it is to govern the movements on which life is absolutely dependent. Probably there is not on record a case of recovery from such an extensive lesion of the brain as the one just mentioned.

Indeed, though the writer has examined a number of surgical works, he has not succeeded in finding the report of but one other case of injury to the brain, with loss of a portion of its substance, followed by recovery. This was published by a Dr. J. Snyder of Va., during the last year, in the *Stethoscope, or Virginia Medical Gazette*. Two cases published by the late Prof. Sewall, of Washington city, are referred to by the American editor of *Cooper's Surgical Dictionary*, but we have not succeeded in procuring the Journal containing them.

So far as the writer has examined, Pott neither reports nor speaks of a case where any portion of the substance of the brain was lost. In the case spoken of above, reported by Dr. Snyder, the patient, a lad about eight years of age, was run over by a horse, and thrown against a stone, which caused an extensive fracture and loss of a considerable quantity of the cerebral mass. These, with the rapid recovery, were the principal points of interest mentioned in this case. The patient recovered from the effect of the injury in less than four months.

In the case reported above by Dr. Fitch, there are several points of very great interest in a physiological as well as a pathological point of view. We have neither time nor space to do more than refer to them now, leaving our readers to comment on them at leisure.

As the injury received was by a blow on the side of the head, it is evident, that aside from the fracture and depression caused by the blow, there was a possibility of another effect, viz. : extravasation on the opposite side, the result of what the French term *contre coup*; and that this did occur, seems probable from the fact that there was, as long as four months after the receipt of the injury, a weakness in the patient's *right* arm. Another thing worthy of attention is the fact, that the jactitation and the spasmodic action in the fauces, when the patient attempted to swal-

low fluids, bore some resemblance to the morbid nervous action of a patient laboring under an attack of hydrophobia. It is evident, that the nervous influence supplied to the stomach, was insufficient to enable it to perform its function for the period of two weeks, during which time the patient was nourished wholly by enemata of milk and arrow-root; and that the lower bowels readily assumed the duties thus thrown upon them, is proved by the fact that, although these injections were used daily from the time of the accident, yet it was full three weeks before there was any discharge from the bowels, when a purgative suppository was used with success.

Another interesting feature in the case is, the great length of time that elapsed before all the fragments and spiculæ of bone were discharged, viz., one year and five months. During all this time, although an exhausting drain was kept up, and that so near the brain, the patient improved constantly both mentally and physically.

But there still remains the most interesting feature in the case, viz. : the effect of the injury on the patient's mind, and on at least one of the organs of special sense—the taste. Why was it that the patient retained the memory of the *countenance* of an individual while he had forgotten his *name*? On what physiological principle was he able to describe the shape, size, appearance, and position of an article he desired, while he could not call it by name? Why did he find it so difficult to remember the names of *some* letters of the alphabet, while he had no difficulty whatever with *others*? To say, simply, that he had lost the memory of *names*, is by no means a sufficient answer to these inquiries. It would seem too, that the effect on the *taste* involved not the *loss* of that sense, but the inability to remember the taste belonging to a particular article.

The writer, not feeling competent to undertake the solution of the interesting questions started in this connection, will here bring these already too extended remarks to a close, with the hope that others may be led to think and observe on the subject, should they have the opportunity to do so, and record minutely such facts as may present themselves.

BURLINGTON, N. J., Jan., 1852.

